



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/689,447	10/12/2000	Benoist Sebire	297-009787-US(PAR)	7380

7590 06/30/2004
Clarence A Green
Perman & Green
425 Post Road
Fairfield, CT 06430

EXAMINER

ODLAND, DAVID E

ART UNIT PAPER NUMBER

2662

DATE MAILED: 06/30/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/689,447

Applicant(s)

SEBIRE, BENOIST

Examiner

David Odland

Art Unit

2662

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 April 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-26 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Response to Amendment

1. The following is a response to the amendments filed on 04/12/2004.

Specification

2. The abstract of the disclosure is objected to because it does not include section headings to delineate the different part of the application. Correction is required. See MPEP § 608.01(b).

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claims 1-18 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.

Specifically, claim 1 recites the step of selecting the number of radio bursts in a certain time slot (see lines 11 and 12), which is subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Note, the specification does describe a procedure of selecting the number of bursts in a data block but not selecting the number of bursts in a time slot (see step 604 of figure 6 and step 802 of figure 8).

Claims 2-18 are rejected because they depend on claim 1.

Art Unit: 2662

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter, which the applicant regards as his invention.

6. Claims 1-18 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 1 recites that the method for transmitting data on a packet data comprises “the packet data channel is formed by sequential radio bursts....to which the data block is related...” (in lines 3 through 10) and also recites “...further comprising the step of...” (in line 11). These limitations are unclear. Namely, it is unclear what are the steps being performed by the method of the claimed invention and it is unclear how there can be ‘further’ steps when no previous steps were recited.

Claims 2-18 are rejected because they depend on claim 1.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-11,13,15,19-21 and 23-25, as best understood, are rejected under 35

U.S.C. 102(b) as being anticipated by Scheibel, Jr. et al. (USPN 5,606,561), hereafter referred to as Scheibel.

Referring to claims 1, Scheibel discloses a method for transmitting data on a packet data channel (packets are transmitted and received over a packet channel (see figures 9 and 10 and abstract)) comprising the step of selecting the number of radio bursts in a frame that a data block is transmitted (the packets are fragmented into packet fragments that are transmitted in a frame which takes a certain amount of time (i.e. a time slot) (see figures 8-10)), from a certain set of values, which set contains at least two values (the number of packet fragments is determined based on number of available time slots and hardware capabilities (see figures 9 and 10)).

Referring to claims 19,23 and 25, Scheibel discloses a system comprising means for transmitting uplink data blocks (packets are transmitted over a packet channel (see figures 9 and 10 and abstract)), means for receiving downlink data blocks (packets are received over a packet channel (see figures 9 and 10 and abstract)), means for detecting the number of downlink radio bursts in which a downlink data block is transmitted (the incoming packet fragments are reassembled into the proper sequence (see figures 8 and 9)) and means for selecting the number of uplink radio bursts in which an uplink data block is transmitted (the number of packet fragments is determined based on number of available time slots and hardware capabilities (see figures 9 and 10)) .

Referring to claims 2-11,13,15,20,21 and 24 Scheibel discloses the system discussed above. Furthermore, Scheibel discloses coding each of said data blocks before transmission (voice signals from the wireless subscribers are converted into digital data and then packetized and framed before being transmitted (see figures 1,9 and 10)), aggregating the resulting coded data blocks to at least one aggregated coded data block (the packets fragments are aggregated to stream of frames (see figures 4,9 and 10)), each of which aggregated coded data blocks consists

Art Unit: 2662

of at least one part (the stream comprises at least one frame (see figures 8-10)), a number of parts of the at least one part being complete coded data blocks (time slots of the frames that are transmitted are completely coded (see figures 4 and 9)) and a number of other of the at least one part being partial coded data blocks (packets not yet put into the stream are only partially coded until it is their turn to be transmitted (see figures 4 and 9)), and transmitting each part within an aggregated coded data block by using a part-specific number of radio bursts in such a way that a sum of part-specific numbers within the aggregated coded data block is a certain predetermined number (the stream consists of frames and timeslots which have corresponding numbers (see figure 4));

wherein a number of aggregated coded data blocks contain only one part, which is a complete coded data block (packets can be in a single slot in the frame and when the frame is sent the packet has been completely coded (see "single slot" in figure 6));

wherein an aggregated coded data block containing a part, which is a partial coded data block, contains only said part (when the single slot packet is not completely transmitted is only partially coded (see figure 4 and 6));

wherein the method, in which a certain data block is coded, is selected based on the number of radio bursts selected for said data block (the TDMA protocol is used to transmit the packets and their corresponding fragments (see figures 4 and 9));

wherein the number of radio bursts for transmitting a data block is selected based on the method in which said data block is coded (the number of fragments is based on the number of time slots which is related to the TDMA protocol (see figures 1, 4, 9 and 10));

wherein the number of radio bursts for transmitting a data block is selected for each packet data channel and all data blocks transmitted on a packet data channel are transmitted using a selected packet data channel specific number of radio bursts (packets are fragmented and transmitted, wherein each packet corresponds to a channel (see figures 1,4,9 and 10));

wherein the number of radio bursts for transmitting a data block is selected separately for each data block (each packet is fragmented separately (see figures 9 and 10));

constructing a header for each aggregated coded data block, and transmitting the header of the aggregated coded data block using the same radio bursts as the aggregated coded data block (the whole packet is fragmented, thus the header is fragmented as well (see figures 9 and 10));

constructing a header for each part within an aggregated coded data block, and transmitting each header using the same radio bursts as the part related to it (each packet, inherently, has a header that corresponds to it and the packet, including the header, are fragmented and transmitted (see figures 4,9 and 10));

communicating an allocation of the number of the radio bursts, using which a part of the aggregated coded data block is transmitted, at least to the mobile station related to the connection indicated in the data block in the part (the packets that are transmitted are addressed to mobile subscribers (see column 3));

constructing a header for an aggregated coded data block, and transmitting the header of an aggregated coded data block using the same radio bursts as the aggregated coded data block, and wherein the allocation of the number of radio bursts is communicated to the mobile station together with said header (the packets inherently have headers that contain the address of the

Art Unit: 2662

mobile subscriber and the packets are transmitted and received by the subscriber (see figures 1,4,9 and 10));

wherein the designation of uplink radio bursts is communicated to the mobile station with said header (721, 731,741) of a downlink aggregated coded data block (frames and their packets sent to the mobile subscribers by the base station have the subscribers address in them (see figures 1,4,9 and 10));

wherein the means (1112) for selecting the number of uplink radio bursts are means for selecting the number of uplink radio bursts as dictated by the cellular radio system (the number of fragments are decided by the base stations and mobile stations and they are part of the mobile system (see figures 1,4,9 and 10));

wherein the means (1112) for selecting the number of uplink radio bursts are means for selecting the number of uplink radio bursts independently(each packet is fragmented independently (see figures 1,4,9 and 10));

selecting the number of uplink radio bursts using which an uplink data block is transmitted (the packets are fragmented and are put into a frame (see figures 1,4,9 and 10)).

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Art Unit: 2662

10. Claim 12, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheibel in view of Radimirsch et al. (USPN 6,212,202), hereafter referred to as Radimirsch.

Referring to claim 12, Scheibel disclose the system discussed above. Scheibel does not disclose that the allocation of the number of radio bursts is signaled to the mobile station using a signaling channel different from the packet data channel. However, Radimirsch discloses a wireless system wherein signaling data is sent in a different channel than payload data (see figure 3). It would have been obvious to one skilled in the art at the time of the invention to implement this feature in Scheibel because as Radimirsch points out in column 1 lines 55-59, a separate signaling channel will allow for a modulation type which is insensitive to Doppler shift due to the movement of the mobile stations of the system, thereby making Scheibel more robust and reliable.

11. Claim 14, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over Scheibel in view of Barker et al. (USPN 5,931,916), hereafter referred to as Barker.

Referring to claim 14, Scheibel disclose the system discussed above. Scheibel does not disclose that a number of downlink radio bursts used to transmit a part within an aggregated coded data block is indicated for each part of said aggregated coded data block in said header of said aggregated coded data block. However, Barker discloses of a packet-based system wherein the packet headers include a fragment number, which indicates the number of packets that have been transmitted to the receiver at any given point in time (i.e. if the fragment number is 3 then the transmitter has sent 3 fragments to the receiver at that point (see claim 13)). It would have

Art Unit: 2662

been obvious to one skilled in the art at the time of the invention to implement this feature in the Scheibel system because the fragment numbers can be used to make sure that the fragments are received in the right order, thus preventing erroneous data. This is particularly important in Scheibel because Scheibel processes voice calls, reproducing packets in the wrong order will make the calls sound distorted.

12. Claims 22 and 26, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over Scheibel in view of Persson et al. (USPN 6,647,000), hereafter referred to as Persson.

Referring to claims 22 and 26, Scheibel disclose the system discussed above. Scheibel does not disclose that the mobile station and the network element are of the EGPRS system. However, Persson discloses a wireless system wherein the network elements operate using Enhanced GPRS (EGPRS) (see column 2 lines 1-13). It would have been obvious to one skilled in the art at the time of the invention to operate the network elements of Scheibel using the EGPRS protocol because doing so would make the system more versatile with respect to the type of service it provided and would allow the system to use the benefits of packet switching that EGPRS provides thus increasing the systems line efficiency.

Response to Arguments

13. Applicant's arguments filed 04/12/2004 have been fully considered but they are not persuasive.

Art Unit: 2662

On page 12 first paragraph, the Applicant argues that Scheibel differs from the Applicant's invention because Scheibel does not include any signaling and the invention applies to a "single slot". The Examiner respectfully disagrees. The claims do not recite a "single slot" and the Examiner has already noted that the Scheibel system does not include signaling and has used Radimirsch to make up for this deficiency (see the 35 USC 103 rejection discussed above).

On page 12 5th paragraph, the Applicant contends that "A TDMA frame is not a data block..." The Examiner respectfully disagrees. There is nothing recited in the claim to distinguish the 'data block' from the TDMA frame discussed in Scheibel.

On page 12 last paragraph, the Applicant argues that Scheibel does not show the features recited in claim 19. The Examiner respectfully disagrees. As discussed in the above rejection, Scheibel does indeed teach these features of the invention.

Conclusion

14. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event,

Art Unit: 2662

however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.


Any inquiry concerning this communication or earlier communications from the examiner should be directed to David Odland, who can be reached at (703) 305-3231 on Monday – Friday during the hours of 8am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hassan Kizou, can be reached at (703) 305-4744. The fax number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist, who can be reached at (703) 305-4750.

deo

June 23, 2004


HASSAN KIZOU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2600